



EMERSON[™]

YARWAY HANCOCK INSTRUMENT NEEDLE VALVE
SERIES 8130

Forged steel class 2500 instrument needle valve.



FEATURES

- Top entry design, allows parts removal without removing valve from line.
- One-piece forged body, no gasket leaks.
- Integral needle-point stainless steel disc for accurate control.
- Integral hardened seats.
- Heavy duty, forged one-piece yoke for maximum rigidity.
- One-piece forged gland flange allows for packing replacement without disassembling valve.
- Corrosion resistant trim.
- Available in socket weld and threaded ends for pressures up to 6000 psig at 100°F.

GENERAL APPLICATIONS

- Instrument panels
- Gauge isolation
- Gauge and Instrument by-pass
- Metering
- Regulator load and bleed
- Drains and vents

TECHNICAL DATA

Sizes: NPS ¼, ⅜ and ½
Types: 8130S-1 T-Type
Threaded end to ASME B1.20.1
8130W-1 T-Type
Socket weld to ASME B16.11

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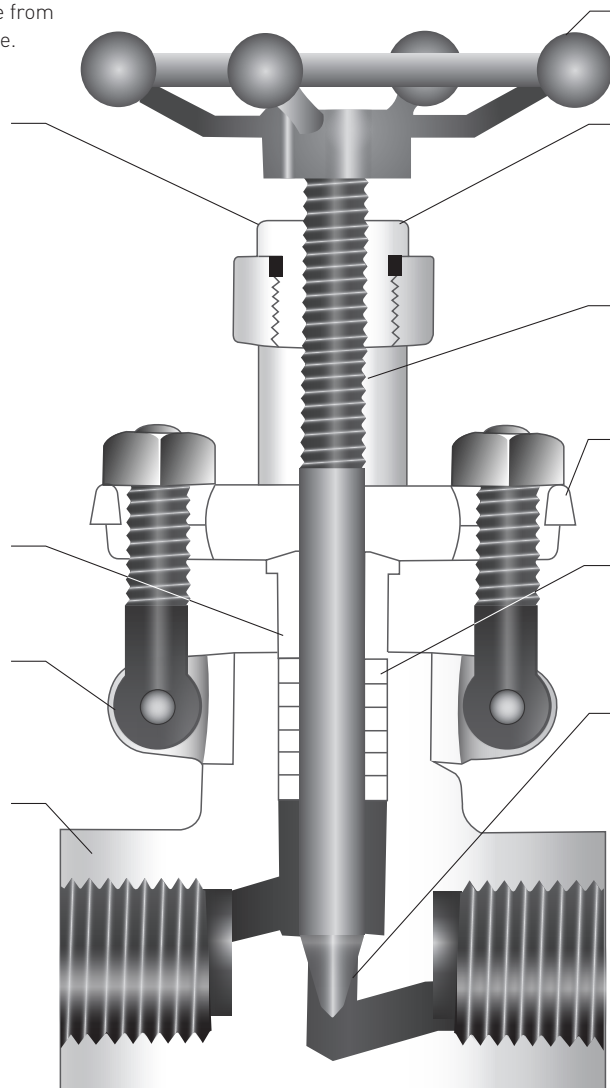
Top entry design - all parts removable from the top without removing valve from line.

Forged yoke - one-piece design for maximum rigidity

Packing gland - allows easy replacement and recompression of packing.

Swing bolt - permit unobstructed packing replacement.

One-piece forged body - eliminates body-bonnet gasket and any possibility of leakage.



Sure grip handwheel - for ease of operation.

Stainless steel thread bushing - maximum strength and long wear.

Stainless steel stem - hardened for durability. Fine threads allow precise control.

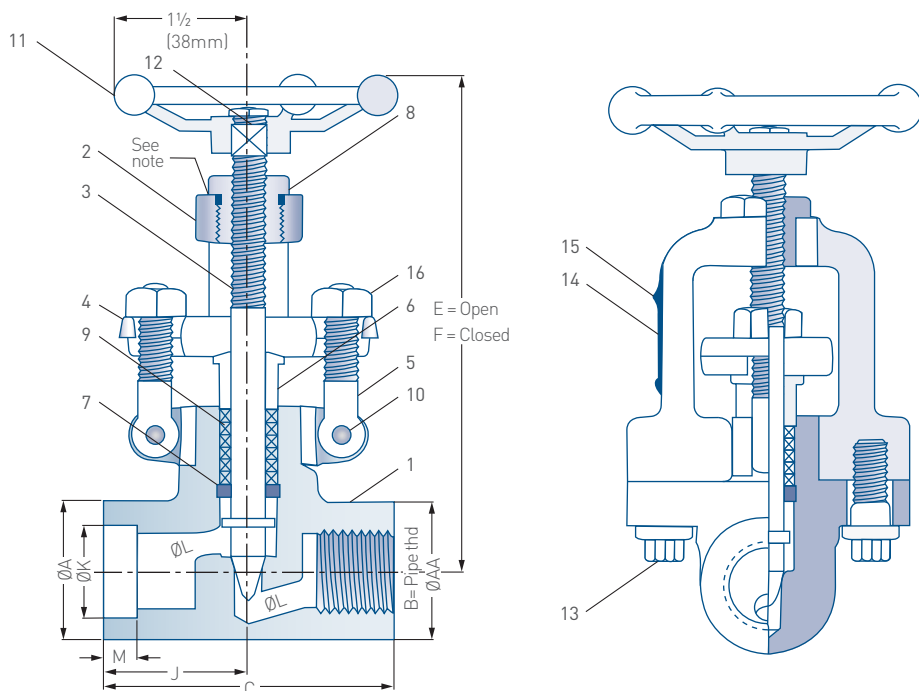
Bolted gland flange - one-piece forging allows for packing replacement without disassembling valve

Deep stuffing box - allows use of various types of packing. Standard packing is GRAFOIL®.

Integral needle-point disc - assures accurate control.

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PARTS LIST

No.	Part	Material	Specification
1	Body	Forged steel	SA182 Gr. F6a3
2	Yoke	Forged steel	SA105 (Phosphated)
3	Stem	Stainless steel	410 Stainless steel
4	Packing gland flange	Carbon steel	A105 (Phosphated)
5	Packing gland bolt	Stainless steel	410 Stainless steel, Cadmium plated
6	Packing gland bolt nut	Stainless steel	Steel, Cadmium plated
7	Packing stop ring	Stainless steel	410 Stainless steel
8	Thread bushing	Stainless steel	410 Stainless steel
9	Packing	Compressed graphite	Corrosion inhibited
10	Packing gland bolt pin	Stainless steel	410 Stainless steel
11	Handwheel	Ductile iron (Phosphated)	ASTM A47 Gr. 32510
12	Handwheel nut	Steel	Lock-Type
13	Yoke cap screw	Alloy steel	ASTM A193 Gr. B7
14	Marker plate	Etched aluminum	Commercial
15	Drive screw	Steel	Commercial
16	Packing gland	Stainless steel	410 Stainless steel

NOTES:

1. Threaded ends to ASME B1.20.1.
2. Socket weld ends to ASME B16.11.
3. Also available in 316 S/S.

DIMENSIONS

Size	ØA	ØAA	B	C	E	F	J	ØK	ØL	M	Weight (lbs)	C _v
1/4 NPS	7/8	1 5/16	1/4	2 3/4	5 1/32	4 23/32	1 3/8	0.555	1/4	3/8	2.25	0.7
3/8 NPS	1 1/32	1 5/16	3/8	2 3/4	5 1/32	4 23/32	1 3/8	0.690	1/4	3/8	2.25	0.7
1/2 NPS	1 5/16	1 5/16	1/2	2 3/4	5 1/32	4 23/32	1 3/8	0.855	1/4	3/8	2.25	0.7

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TYPICAL SPECIFYING SEQUENCE

Example	½	8130	W	1	-2476
Nominal valve size NPS					
¼, ⅜, ½					
Valve type number					
8130 – Instrument needle valve, no bonnet, OS&Y					
End connection					
S - Threaded end W - Socket end					
Design change number					
1					
Material combination suffix					
None - F6a Body, SA 105 Yoke, 13 Cr. Trim -2476 - 316 Body, F6a Yoke, 13 Cr. Trim					

HOW TO ORDER

When ordering valves, please specify:

- A. Quantity required
- B. Valve size
- C. Figure number - See below
- D. Valve type - Instrument
- E. Pressure class
- F. Operator type - Manual
- G. Valve style - No bonnet
- H. Valve materials - Body, trim, yoke, see table
- I. End connection - Threaded, socket weld
- J. Code requirements - ASME B16.34; ASME Boiler and pressure vessel code, section I
- K. Service conditions - Operating pressure, operating temperature, design pressure, design temperature, flow media, flow capacity (if required)

BODY AND TRIM MATERIAL COMBINATIONS

Variation	Standard F6a body 13% Cr. Trim	Stainless steel with alloy trim 316 Body/F6a yoke 13% Cr. Trim
Suffix No.	None	-2476
valve types	8130S	8130S
available	8130W	8130W
Body	SA182 Gr. F6a S/S	SA182 Gr. F6a S/S
Yoke	SA 105	SA182 Gr. F6a S/S
Seat	Integral	Integral
Integral stem-disc	410 S/S	410 S/S
Packing gland	410 S/S	410 S/S
Gland flange	410 S/S	410 S/S
Body bolting	A193 Gr. B7 Alloy steel	A193 Gr. B7 Alloy steel
Packing	Compressed Graphite - Corrosion Inhibited	Compressed Graphite - Corrosion Inhibited